

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1010603

Luminaire Tested: S123DIP-B340D585UB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1010603  
REPORT IS A COMBINATION OF REPORTS P989822 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B340D585UB2750-4F0-XX-W2A-F\_5000K  
Description: Define 3 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

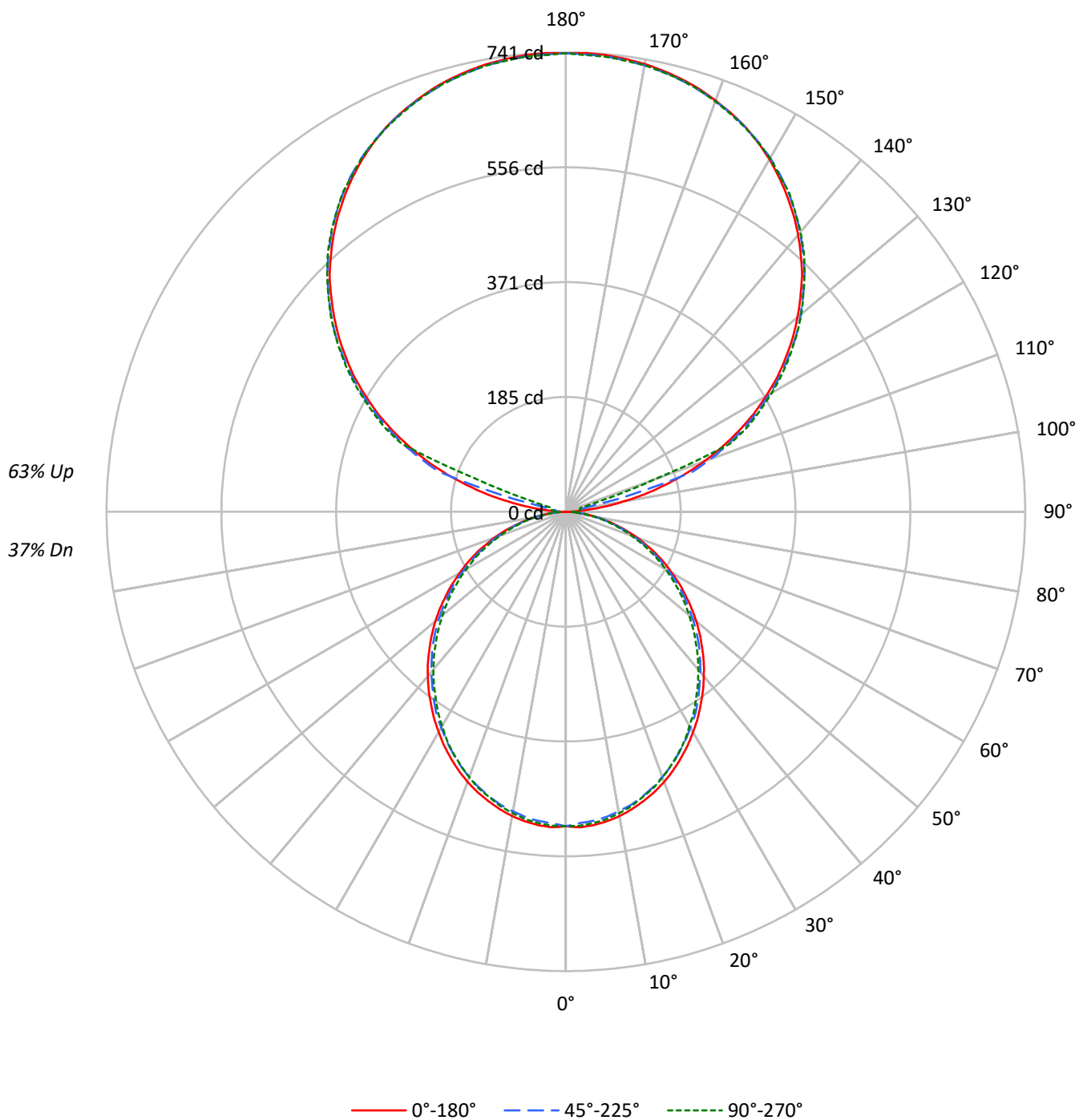
Lumens per Lamp: N/A  
Luminaire Lumens: 3576.0 lumens  
Efficiency: N/A  
Efficacy: 125.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 28.4  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 76 | 76 | 76 | 59 | 59 | 59 | 44 | 44 | 44 | 37 |    |    |
| 1   | 95  | 91  | 87  | 83  | 86 | 82 | 79 | 76 | 67 | 64 | 62 | 52 | 51 | 49 | 39 | 38 | 37 | 31 |    |    |
| 2   | 86  | 79  | 73  | 68  | 78 | 72 | 67 | 62 | 58 | 55 | 51 | 46 | 43 | 41 | 34 | 33 | 31 | 26 |    |    |
| 3   | 79  | 69  | 62  | 56  | 71 | 63 | 57 | 52 | 51 | 47 | 43 | 40 | 37 | 35 | 30 | 28 | 27 | 22 |    |    |
| 4   | 72  | 61  | 54  | 48  | 65 | 56 | 49 | 44 | 46 | 41 | 37 | 36 | 32 | 30 | 27 | 25 | 23 | 19 |    |    |
| 5   | 66  | 55  | 47  | 41  | 59 | 50 | 43 | 38 | 41 | 36 | 32 | 32 | 29 | 26 | 24 | 22 | 20 | 16 |    |    |
| 6   | 61  | 49  | 41  | 35  | 55 | 45 | 38 | 33 | 37 | 31 | 27 | 29 | 25 | 22 | 22 | 19 | 17 | 14 |    |    |
| 7   | 56  | 44  | 36  | 31  | 51 | 40 | 33 | 29 | 33 | 28 | 24 | 26 | 23 | 20 | 20 | 17 | 15 | 13 |    |    |
| 8   | 52  | 40  | 32  | 27  | 47 | 36 | 30 | 25 | 30 | 25 | 21 | 24 | 20 | 18 | 18 | 16 | 14 | 11 |    |    |
| 9   | 48  | 36  | 29  | 24  | 44 | 33 | 27 | 22 | 28 | 23 | 19 | 22 | 18 | 16 | 17 | 14 | 12 | 10 |    |    |
| 10  | 45  | 33  | 26  | 21  | 41 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 17 | 14 | 16 | 13 | 11 | 9  |    |    |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5459 | 5459 | 5459 |
| 5°  | 5473 | 5271 | 5263 |
| 10° | 5425 | 5092 | 5041 |
| 15° | 5349 | 4907 | 4798 |
| 20° | 5263 | 4701 | 4557 |
| 25° | 5150 | 4483 | 4300 |
| 30° | 5028 | 4259 | 4029 |
| 35° | 4900 | 4029 | 3760 |
| 40° | 4766 | 3787 | 3496 |
| 45° | 4617 | 3552 | 3220 |
| 50° | 4467 | 3291 | 2943 |
| 55° | 4274 | 3017 | 2662 |
| 60° | 4077 | 2717 | 2363 |
| 65° | 3890 | 2391 | 2051 |
| 70° | 3622 | 2029 | 1687 |
| 75° | 3233 | 1607 | 1310 |
| 80° | 2796 | 1130 | 925  |
| 85° | 2180 | 607  | 463  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4617 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 47.8   | 1.3       |
| 10°-20°   | 135.0  | 3.8       |
| 20°-30°   | 199.4  | 5.6       |
| 30°-40°   | 232.9  | 6.5       |
| 40°-50°   | 234.1  | 6.5       |
| 50°-60°   | 205.7  | 5.8       |
| 60°-70°   | 153.2  | 4.3       |
| 70°-80°   | 87.2   | 2.4       |
| 80°-90°   | 26.3   | 0.7       |
| 90°-100°  | 26.1   | 0.7       |
| 100°-110° | 126.1  | 3.5       |
| 110°-120° | 309.0  | 8.6       |
| 120°-130° | 392.2  | 11.0      |
| 130°-140° | 419.0  | 11.7      |
| 140°-150° | 391.8  | 11.0      |
| 150°-160° | 316.0  | 8.8       |
| 160°-170° | 204.0  | 5.7       |
| 170°-180° | 70.3   | 2.0       |
| 0°-30°    | 382.2  | 10.7      |
| 0°-40°    | 615.1  | 17.2      |
| 0°-60°    | 1054.9 | 29.5      |
| 0°-90°    | 1321.5 | 37.0      |
| 90°-120°  | 461.1  | 12.9      |
| 90°-150°  | 1664.2 | 46.5      |
| 90°-180°  | 2255.0 | 63.1      |
| 0°-180°   | 3576.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 507 | 507   | 507 | 507   | 507 |      |
| 5°   | 508 | 505   | 501 | 505   | 504 | 48   |
| 15°  | 483 | 482   | 476 | 479   | 477 | 136  |
| 25°  | 439 | 436   | 430 | 431   | 430 | 202  |
| 35°  | 379 | 377   | 371 | 368   | 366 | 237  |
| 45°  | 311 | 309   | 304 | 298   | 296 | 240  |
| 55°  | 236 | 236   | 230 | 225   | 223 | 211  |
| 65°  | 161 | 159   | 154 | 151   | 150 | 159  |
| 75°  | 85  | 83    | 82  | 80    | 78  | 91   |
| 85°  | 23  | 22    | 22  | 21    | 21  | 24   |
| 90°  | 0   | 6     | 13  | 15    | 16  | 3    |
| 95°  | 34  | 11    | 17  | 21    | 21  | 40   |
| 105° | 164 | 170   | 120 | 23    | 24  | 174  |
| 115° | 307 | 310   | 315 | 321   | 323 | 303  |
| 125° | 433 | 437   | 440 | 441   | 442 | 387  |
| 135° | 539 | 542   | 544 | 546   | 544 | 415  |
| 145° | 622 | 626   | 627 | 628   | 628 | 389  |
| 155° | 685 | 684   | 685 | 687   | 684 | 316  |
| 165° | 722 | 721   | 720 | 725   | 721 | 204  |
| 175° | 740 | 737   | 737 | 741   | 737 | 70   |
| 180° | 740 | 740   | 740 | 740   | 740 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 507.2 | 507.2 | 507.2 | 507.2 | 507.2 |
| 2.5°   | 509.4 | 507.6 | 502.8 | 507.2 | 506.8 |
| 5°     | 507.6 | 505.4 | 500.7 | 505.0 | 504.1 |
| 7.5°   | 503.7 | 501.5 | 496.7 | 500.7 | 500.2 |
| 10°    | 498.5 | 496.3 | 490.6 | 494.5 | 493.7 |
| 12.5°  | 491.5 | 489.7 | 484.5 | 487.1 | 486.7 |
| 15°    | 483.2 | 481.5 | 475.8 | 479.3 | 476.7 |
| 17.5°  | 474.0 | 471.9 | 466.2 | 468.8 | 467.9 |
| 20°    | 463.6 | 461.0 | 455.3 | 457.0 | 455.7 |
| 22.5°  | 451.8 | 449.2 | 443.5 | 444.8 | 443.1 |
| 25°    | 438.7 | 436.1 | 430.4 | 430.9 | 429.6 |
| 27.5°  | 425.2 | 422.6 | 416.5 | 416.9 | 415.6 |
| 30°    | 410.4 | 408.2 | 402.1 | 402.1 | 399.0 |
| 32.5°  | 395.5 | 392.5 | 388.1 | 385.1 | 383.8 |
| 35°    | 379.4 | 376.8 | 371.1 | 368.5 | 366.3 |
| 37.5°  | 363.3 | 359.8 | 354.1 | 351.1 | 349.8 |
| 40°    | 346.3 | 343.7 | 337.5 | 334.1 | 332.3 |
| 42.5°  | 329.3 | 326.2 | 320.1 | 316.6 | 314.9 |
| 45°    | 310.9 | 309.2 | 303.5 | 298.3 | 296.1 |
| 47.5°  | 293.1 | 290.4 | 285.2 | 280.0 | 278.2 |
| 50°    | 274.7 | 272.6 | 266.9 | 262.1 | 259.5 |
| 52.5°  | 255.6 | 254.3 | 248.1 | 244.2 | 241.6 |
| 55°    | 235.9 | 235.5 | 229.8 | 225.0 | 222.9 |
| 57.5°  | 217.6 | 215.9 | 211.5 | 207.2 | 204.5 |
| 60°    | 197.6 | 197.1 | 191.9 | 188.0 | 185.8 |
| 62.5°  | 179.7 | 178.4 | 173.1 | 169.2 | 167.9 |
| 65°    | 160.9 | 158.7 | 154.4 | 150.9 | 149.6 |
| 67.5°  | 140.9 | 139.1 | 135.6 | 132.6 | 130.8 |
| 70°    | 123.0 | 120.4 | 117.7 | 114.7 | 112.5 |
| 72.5°  | 104.2 | 102.5 | 99.4  | 96.8  | 95.9  |
| 75°    | 85.0  | 83.3  | 82.0  | 79.8  | 78.5  |
| 77.5°  | 68.0  | 67.2  | 65.4  | 63.7  | 63.7  |
| 80°    | 51.5  | 50.2  | 49.3  | 48.8  | 48.8  |
| 82.5°  | 35.3  | 35.3  | 35.3  | 34.5  | 34.0  |
| 85°    | 22.7  | 21.8  | 21.8  | 20.9  | 20.9  |
| 87.5°  | 11.3  | 10.0  | 9.6   | 9.2   | 9.2   |
| 90°    | 0.5   | 6.0   | 13.2  | 15.4  | 16.5  |
| 92.5°  | 12.6  | 9.3   | 14.3  | 18.1  | 18.7  |
| 95°    | 33.5  | 11.0  | 17.0  | 20.9  | 20.9  |
| 97.5°  | 61.0  | 45.6  | 17.6  | 22.0  | 22.5  |
| 100°   | 92.9  | 103.8 | 18.1  | 22.5  | 23.1  |
| 102.5° | 129.1 | 136.3 | 40.7  | 22.5  | 23.6  |
| 105°   | 163.7 | 169.8 | 120.3 | 23.1  | 24.2  |
| 107.5° | 200.5 | 205.5 | 213.7 | 129.1 | 57.1  |
| 110°   | 237.4 | 241.7 | 247.8 | 229.7 | 151.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 272.5 | 276.4 | 282.4 | 287.4 | 286.3 |
| 115°   | 307.1 | 310.4 | 315.4 | 320.9 | 323.1 |
| 117.5° | 341.2 | 345.0 | 347.8 | 352.2 | 352.7 |
| 120°   | 372.5 | 377.5 | 379.1 | 383.5 | 383.5 |
| 122.5° | 404.4 | 408.2 | 410.4 | 413.2 | 413.7 |
| 125°   | 432.9 | 437.3 | 439.5 | 440.6 | 441.7 |
| 127.5° | 461.5 | 465.9 | 468.7 | 470.3 | 469.2 |
| 130°   | 487.9 | 492.3 | 494.5 | 496.7 | 495.6 |
| 132.5° | 513.2 | 517.6 | 519.2 | 521.4 | 519.8 |
| 135°   | 539.0 | 542.3 | 544.5 | 546.1 | 544.5 |
| 137.5° | 561.0 | 565.4 | 566.5 | 569.2 | 568.1 |
| 140°   | 582.9 | 586.2 | 587.9 | 590.1 | 589.0 |
| 142.5° | 603.3 | 606.6 | 608.2 | 609.9 | 608.2 |
| 145°   | 622.0 | 625.8 | 626.9 | 628.0 | 628.0 |
| 147.5° | 640.1 | 642.8 | 643.9 | 645.0 | 642.3 |
| 150°   | 656.6 | 658.2 | 659.3 | 660.4 | 658.8 |
| 152.5° | 671.4 | 672.0 | 672.5 | 674.7 | 672.0 |
| 155°   | 685.1 | 684.0 | 684.6 | 687.3 | 684.0 |
| 157.5° | 696.1 | 696.1 | 695.6 | 698.9 | 694.5 |
| 160°   | 706.0 | 705.5 | 704.9 | 708.2 | 704.4 |
| 162.5° | 715.4 | 713.7 | 713.2 | 717.0 | 713.7 |
| 165°   | 722.5 | 720.9 | 720.3 | 724.7 | 720.9 |
| 167.5° | 728.5 | 726.3 | 726.3 | 730.7 | 726.3 |
| 170°   | 733.5 | 731.3 | 731.3 | 735.7 | 731.3 |
| 172.5° | 736.8 | 734.0 | 734.6 | 739.0 | 734.0 |
| 175°   | 739.5 | 736.8 | 737.3 | 741.2 | 736.8 |
| 177.5° | 740.6 | 737.9 | 738.4 | 742.8 | 737.3 |
| 180°   | 739.5 | 739.5 | 739.5 | 739.5 | 739.5 |

(END OF REPORT)